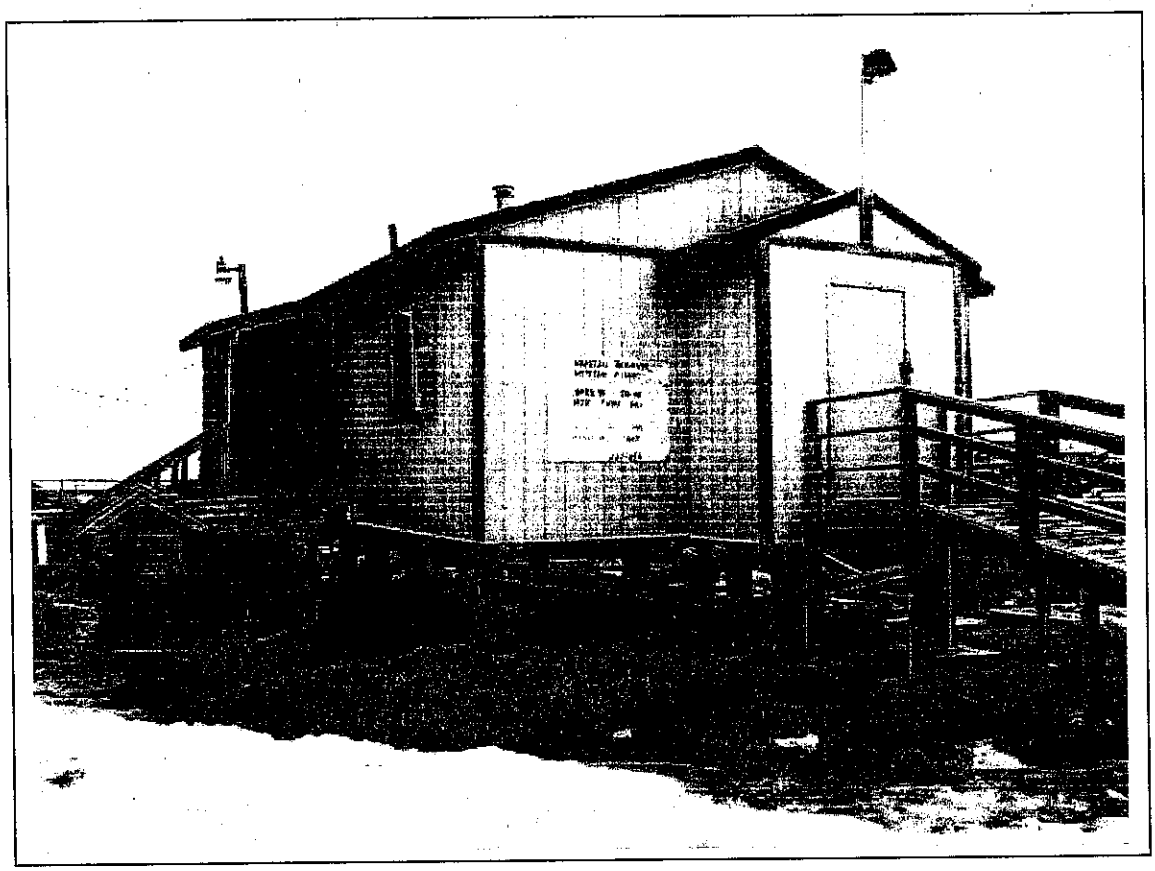
ORIGINAL

NEWTOK
HEALTH CLINIC



Alaska Rural Primary Care Facility
Assessment and Inventory Survey

Final
July 23, 2001

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I. Executive Summary

Overview:

The Newtok Clinic, built in 1989, is 20' x 24' building with small vestibules for a total of 566 SF. It is the smallest freestanding clinic in the entire YKHC program area. . It has a waiting room, toilet room, furnace alcove, office/triage area, one exam room, janitor/supply/water storage tank room, and storage area. It has a front entry with a plywood vestibule, and rear entry with a ramp and minimal plywood vestibule. The simple wood frame construction on an 8 x 8 treated wood post and pad system directly on the tundra is similar to many clinics constructed in the YKHC region over the last 20-30 years. It has been modified due to heating problems with all exposed internal piping, and is in extremely poor condition and the smallest for the current size of the village, 321 residents.

The clinic has served as a demonstration of flush tank/haul FTH project. The FTH system includes a 100-gallon haul water tank, interior plumbing, sewage holding tank, and haul equipment. Water is hauled from the central community watering point. Sinks are provided in the office/triage room, exam room, toilet room, and janitor's room. Wastewater is hauled in the closed tank unit.

Renovation/Upgrade and Addition:

The Clinic will require a 1434 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition would require some reconfiguration of the site and additional new fill and pad work. There would also need to be major renovation and upgrade of the existing clinic. As can be seen from the documentation enclosed, the existing clinic will require major renovation to meet current code and standards as well. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

The city has provided a new site, adjacent to the existing clinic and city facilities. It is available immediately for a new clinic. The community has proposed that a new larger 2000 SF Denali Commission Medium Clinic can be constructed on the new site. We have included preliminary site plan for this site and a new 2000 SF clinic.

The proposed site has all existing utilities and is in easy access to the entire community and other community related facilities

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations of the site presented.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Tom Humphrey, Capital Projects Director, and Senka Paul, the administrator for Yukon Kuskokwim Health Corporation, organized the assessment team. The team for this site visit was Senka Paul, YKHC; Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering, and Matt Reardon, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Eric Cowling, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. The Site Investigation:

On June 14, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately four hours was spent on site, with sufficient

time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Natalia Tommy and Sally Kilongak, Health Aides, and other city residents, including tribal administrator Phil Kusayak. The city and tribal staff provided information on the existing building, site, and utilities. Additional review of existing data from YKHC files from physician's assistants, community health aides, travel clerks, dentists, specialty clinic providers, and medivac teams. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Newtok community has reviewed the use of a Denali Commission Medium Health Clinic design adapted to the Newtok Sites. The site is secured adjacent to the existing health clinic and city facilities.

II. Clinic Inspection Summary

A. Community Information:

Population: 321 (2000 Census)
Unorganized City, Unorganized Borough, Lower Kuskokwim School District, Calista Corporation

Location:
Newtok is on the Ninglick River north of Nelson Island in the Yukon-Kuskokwim Delta Region. It is 94 miles northwest of Bethel. It lies at approximately 60d 56m N Latitude, 164d 38m W Longitude (Sec. 24, T010N, R087W, Seward Meridian). The community is located in the Bethel Recording District. The area encompasses 7 sq. miles of land and 1 sq. miles of water.

History:
The people of Newtok share a heritage with Nelson Island communities; their ancestors have lived on the Bering Sea coast for at least 2,000 years. The people from the five villages are known as Qaluyaarmiut, or "dip net people." Only intermittent outside contact occurred until the 1920s. In the 1950s the Territorial Guard found volunteers from Newtok while they were traveling to Bethel. Tuberculosis was a major health problem during this period. In the late 1950s, the village was relocated from Old Kealavik ten miles away to its present location to escape flooding. A school was built in 1958, although high school students were required to travel to Bethel, St. Mary's, Sitka or Anchorage for their education. This was often their first exposure to the outside, and students returned with a good knowledge of the English language and culture. A high school was constructed in Newtok in the 1970s. A City was incorporated in 1976, but was dissolved in 1997. Due to severe erosion, the village wants to relocate to a new site called Taqikcaq, approximately 5 miles away on Nelson Island. The land is part of the Yukon Delta National Wildlife Refuge, and villagers hope to exchange land with the U.S. Fish and Wildlife Service.

Culture:
Newtok is a traditional Yup'ik Eskimo village, with an active subsistence lifestyle. Relative isolation from outside influences has enabled the area to retain its traditions and customs; more so than other parts of Alaska. The sale or importation of alcohol is banned in the village.

Economy:

The school, clinic, village organizations, and commercial fishing provide employment. Subsistence activities and trapping supplement income. 22 residents hold commercial fishing permits.

Facilities:

Water is pumped from a lake into a water treatment plant, then hauled from a storage tank. In winter, melted ice is used when water in the storage tank runs dry or freezes. Households are not plumbed, and honeybuckets are used. A washeteria is available. A feasibility study for a flush/haul system was recently completed. The health clinic now uses flush/haul tanks. The schools have individual wells; a new well and water treatment system are needed. Refuse collection is provided, and a new landfill has been completed, but DOT has determined that it is too close to the airport. The community wants to relocate and rebuild facilities on Nelson Island.

Transportation:

A State-owned 2,180' gravel airstrip provides chartered or private air access year-round; major improvements are under construction. A seaplane base is also available. Boats, skiffs and snowmachines are used for local transportation and subsistence activities. Barges deliver cargo during the summer months.

Climate:

Newtok is located in a marine climate. Average precipitation is 17 inches, with annual snowfall of 22 inches. Summer temperatures range from 42 to 59, winter temperatures are 2 to 19.

B. General Clinic Information:

Physical Plant Information:

The existing Newtok Clinic was completed in 1989 and occupies 566 sq. ft. (See attached Plan) It is smallest size clinics constructed during the last twenty years in the YKHC program area. It has very small waiting room, toilet, janitor/storage/supply room/water storage room, office/triage, one small exam room, storage room, and a furnace in the waiting room. It has a front entry with plywood uninsulated vestibule and non-code compliant stair. It has a rear entry with plywood, un-insulated vestibule and a non-code compliant steep ramp with no stair. Neither of the entrances allows for stretcher access and do not meet code. The office/triage is the main office and triage room. There is a single exam room that when occupied by the itinerant dentist, when we were there, made any other medical use of the facility impossible. The clinic has served with flush tank and haul water and sewer system. None of the sinks or fixtures are ADA compliant. There is no a bath. The janitor sink is in the water storage, pump, and storage room and is very difficult to use. The doors on the rooms are plywood and there are openings above the doors for heating air circulation that prevents any form of patient privacy.

Clinic program usage information:

Patient records indicate the clinic sees an average of 366 patients per month in 2000, and 178 patients per month in 1999 and 110 patients per month in 1998. This is an over a 330% increase in patient encounters in the last two years. There are 2 full or part time staff and 1 Itinerant or contract staff equivalent. The office space provided is not adequate and all the office functions, travel, files, and use by all health aides is accomplished in the single office area. There is only one actual exam room, and the office/triage to see patients. The remainder of the facility is packed full of medical items, office, and small circulation. Storage is completely inadequate; Basically only one patient can be seen at a time.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Newtok Actual SF to Denali Commission Medium Clinic

Alaska Rural Primary Care Facility

				Current Clinic			Medium clinic					
Purpose / Activity	**Designated Intinerant**			**Actual Net SF**			**ARPCF SF**			**Difference**		
	Size	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**
Arctic Entries				28, 24	2	52	50	2	100			48
Waiting/Recep/Closet	150	1	150	80	1	80	150	1	150			70
Trauma/Telemed/Exam	200	1	200			0	200	1	200			200
Office/Exam				85	1	85	150	1	150			65
Admin./Records				57	1	57	110	1	110			53
Pharmacy/Lab						0	80	1	80			80
Portable X-ray						0			0			0
Specialty Clinic/Health Ed/Conf						0	150	1	150			150
Patient Holding/ Sleeping Room						0	80	1	80			80
Storage	150	1	150	47	1	47	100	1	100			53
HC Toilet				30	1	30	60	2	120			90
Janitor's Closet				24	1	24	30	1	30			6
Subtotal Net Area			500			375			1270			895
Circulation & Net/Gross Conv. @ 45%						175			572			397
Subtotal (GSF)						550			1842			1292
Mechanical Space @ 8%				16	1	16			147			131
Total Heated Space			**500**			566			1989			1423
			0									
Morgue (unheated enclosed space)							30	1	30			30
Ext. Ramps, Stairs, Loading	HC Accessible			As Required			As Required			As Required		

a. Overall space deficiencies: The size of the facility is about 1425 SF short of the ARPCF space requirements. Based on the YKHC efficiently designed facility to meet ARPCF requirements, the existing facility is still just under 1400 sf short of the needed space.

b. Specific room deficiencies: There is minimal vestibule, minimal exam room space, inadequate office space, and no itinerant sleeping area. These deficiencies in combination with other small spaces leave the clinic very program deficient.

c. Other size issues: Mechanical non-existent There are no unheated or exterior storage areas.

2. Building Issues:

a. Arctic Entries - The main entry in not accessible for ADA and is impossible to get a gurney into the room. It does not have a legal ramp and lack of room. The rear entry has a no stair and non-compliant ramp and railings.

b. Waiting / Reception –The waiting area contains three chairs, the furnace and the radio and a small storage cabinet and has equipment, rollaway bed and other items stored in the room. It is not large enough for anything else since it is so small. Patient use is severely restricted.

c. One Exam – There is really only one exam room available. The room though sized adequately is full of other clinic equipment and storage items. It is inaccessible for gurney and has a plywood door and air opening above with no privacy.

d. Office / Triage – This room has a desk, copier, fax, a single patient chair and a small sink. Again it has a plywood door and air opening above with no privacy. This room is not large enough for an office and when a patient is also in the room it is impossible. The electrical service is totally inadequate for this room and the facility.

e. Administration / Records – There is the single room Office/Triage above that is used for all administrative functions as well as medical triage. There is a storage room that has is full of cabinets with medicines, refrigerator, and all supplies for the clinic. It is barely 47 SF.

f. Pharmacy / Lab – There is no Pharmacy and medicines are stored in locked cabinets in storage room.

g. Specialty Clinic / Health Education / Conference - This function is completed in the single exam room and makes any other medical delivery impossible.

h. Patient Holding / Sleeping Room – There is no sleeping room and only a rollaway bed for itinerant staff.

i. Storage – Storage is adequate and is and is contained in the storage in the rear and the janitor closet and in the vestibules to the point of major fire exiting problems mechanical room with hot water heater in the front. Though adequate, it is very dysfunctional due to location, lack of shelving and storage systems.

j. HC Toilet Facilities – A single toilet room serves patients and clinic staff. The toilet room did not meet any of the ADA or UPC requirements. Entry door width was too narrow, and the toilet and sink lacked sufficient clearances and were of incorrect fixture type. There is no vacuum breaker on this sink as required by code. There is no tub. All these areas are very unsanitary.

k. Janitors Room – There is a room that has a janitor's sink that also has the water storage, and other equipment items. It is only a 24 SF room and is very crowded.

l. Mechanical/Boiler room – There in no Mechanical room or Boiler room. The furnace sets in the waiting room and is exposed to patients. This is a very unsafe condition and does not meet code. There is no 1 hr. separation.

m. Ancillary Rooms – There are no ancillary rooms as all space is used to maximum capacity including storage rooms, exam rooms, toilet rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues
   This facility is functionally and totally inadequate for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, sanitation and patient care are very poor due to materials, and condition of the facility. The ability to perform required medical functions within the facility is severely hampered by lack of storage, and not adequate sinks.

4. Health Program Issues

   a. Patient comfort and privacy:
      The front door of the clinic is through a very small vestibule that is inadequate to defer the heat loss. There is no ADA access or gurney access. The waiting room is cold every time the door is opened and the cold air migrates into the clinic where patients are being attended. There is absolutely no patient privacy since all the doors are plywood and there are air openings over the top of all doors for air circulation.

   b. Medical/Infectious Waste
      This is being handled in a very basic method and is hampered by the small non-functional facility.

   c. Infection Control
      This is being completed with minimal long-term control due to lack of facilities. Floor materials are very worn out and replaced with multiple materials and sizes allowing for control problems. There is no rubber base material, and walls is mostly of plywood paneling and ceiling materials are also plywood are also considerably lacking in cleaning ability. There is a janitor sink for general cleaning and sinks in the exam rooms for practioner use though none of these meet code requirements.

   d. Insect and Rodent Control
      None noted or investigated

   e. Housekeeping
      The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities
   a. Water Supply
      The existing water hauling system from city tank provides the clinic water.
   b. Sewage Disposal
      Sewer system is provided by flush tank and haul system to lagoon.
   c. Electricity
      See Electrical Narrative
   d. Telephone
      A single phone line services the clinic and is inadequate for current needs.
   e. Fuel Oil
      The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

   a. Floor Construction:
   The floor is 2 x 10 joist over a 6 x 6 floor beams. The beams are supported with 6 x 6 posts with 3 x 12 pads under the posts. There is R-19 insulation in the floor with 3/8" plywood on the bottom of the joist. . There is abnormal amount of settlement and heaving that has caused doors to stick and floor to be uneven. There is approximately 7 inches of differential in the floor elevations. All piping has been relocated internal to the room space or is in arctic pipe due to the crawlspace being unheated.

   b. Exterior Wall Construction:
   The walls are 2 x 6 construction at 24" oc. The sheathing is T-111 plywood siding painted and R-19 fiberglass batt insulation with vapor barrier ¼" paneling on the interior.

   c. Roof Construction:
   The roof is a full-span truss at 24" oc with plywood deck and metal roof. The insulation is approximately 12" or R-38 of batt insulation that is minimal in this climate.

   d. Exterior Doors:
   The exterior doors are residential insulated metal. They are in very poor shape and need replacement.

   e. Exterior Windows:
   Windows are of thermo-pane wood casement windows and do not all open.

   f. Exterior Decks, Stairs, and Ramps
   There are minimal Arctic entries. There is no landing at the front entrance outside the main door, and the rear door and ramp are deteriorating. The front stairs rise and run do not meet code and is also deteriorating. The ramp is very steep and does not meet ADA and the handrails and landings do not meet code.

2. Interior Construction:

   a. Flooring:
   The flooring is Vinyl tile over plywood. It has been replaced in many areas and is seriously deteriorated in most areas. Duct tape has been used to patch the flooring that is worn out and covered with duct-tape in other areas. Entire replacement of sub-floor and finish is required to meet sanitary requirements.

   b. Walls:
   The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is ¼" paneling and is in serious need of repair and replacement. There are many cracks in wall system due to settlement and shifting building.

c. Ceilings:
The ceilings are plywood and needing repair. The ceiling is not easily washed and presents a serious sanitation issue.

d. Interior doors:
The interior doors are of plywood that provides minimal construction durability and they are all in need of repair. Additionally, these doors are not acceptable for patient privacy and sound control. There has been floor shifting and most of the doors do not close properly. They are not ADA accessible and the hardware does not meet ADA requirement.

e. Casework:
The upper casework is non-existent and the lower casework is of very poor construction. Tops are of plywood and do not fit to walls and are seriously deteriorating. The sanitary issues are very significant with the counters being of such poor construction. Need full replacement.

f. Furnishings:
The furnishings are very old and worn. There are three chairs in the waiting room patched with duct tape and a variety of mismatched and old desks, chairs, and tables for other use. The exam tables are older as well.

g. Insulation:

Floor Insulation	R-19
Wall Insulation	R-19
Attic/Roof Insulation	R-38
Attic Ventilation	Gable Vents only

h. Tightness of Construction:
The facility is of generally poor overall construction, with numerous leaks in construction system at doors, floor, roof, and sills.

i. Arctic Design:
The vestibules are minimal, orientation is OK, and siting of the clinic is adequate. The site is adequate for normal arctic design.

3. Structural

a. Foundations
The foundation is treated 6 x 6 posts on 3 x 12 pads for support. Pads have settled substantially, walls are racked, and the building has floor level deviation and has substantial cracking on the interior. There is no hold down strapping and the bracing is loose or missing. In general the foundation needs substantial upgrade work for a new useful lifetime or replacement.

b. Walls and Roof:
The T-11 walls and metal roof seem in relatively stable and adequate condition.

c. Stairs. Landings, and Ramps
These elements are in poor condition and need of replacement with signs of rotting and deterioration of structural elements.

E. Mechanical Condition

1. Heating System
   a. Fuel Storage and Distribution
   The clinics heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 300-gallon storage tank does not have the proper venting, piping, or valving as required by code.

   b. Furnace
   A single residential grade, oil-fired furnace provides heating for the entire clinic. The furnace is in poor shape with missing controls and duct systems to meet the needs of the Health Clinic. There is severe corrosion on the furnace stack and the vent assembly is in poor condition. There is no combustion air openings for the furnace which is against code. There are no additional heaters in the clinic to assist with heating. The entire heating system is in need of replacement.

   c. Heat Distribution System
   There is no furnace supply air duct distribution system. The heated air diffuses into the occupied spaces, but not very successfully.

2. Ventilation System
   a. System
   There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation.

   b. Exhaust Air
   A wall mounted exhaust fan services the toilet room. The janitor's room was not provided with an exhaust fan.

   c. Outside Air
   Some of the rooms with operable windows have broken or missing operators so the windows cannot be opened.

3. Plumbing System
   a. Water System
   The water system plumbing is typical ½" and ¾" copper distribution piping to the clinic exam sinks and toilet fixtures.

   b. Sewer System
   A flush tank and haul sanitary sewer provides the needs of the clinic. The system is currently not operational; hence, the clinic has no water and sewer.

c. Fixtures
The toilet room lavatory fixture is not ADA approved or UPC code compliant for barrier free access.

d. Water Heater
The water heater is installed in a room with storage nearby which makes inspections, maintenance, and repair difficult. The water heater has not been provided with code required dielectric unions nor is the relief valve piped to the floor as required by code.

F. Electrical Condition

1. Electrical Service
   a. The electrical service is an overhead connection to the building with a meter/main combination panel located on the exterior of the building. The service entrance disconnect is a Nema 3R combination panel. No raceway was provided for the service entrance conductors nor the feeder into the main panel.

   b. The service is a 100 Amp, 120/240V, 1 Ph, 3 wire.

   c. The fuel oil tank is located such that the fill/vent is within 5 ft of the electrical service.

2. Power Distribution
   a. The MDP is a 100 Amp Square D QO load center Series L1 with 8 poles total of which 1 is spare.

   b. Type XHHW individual (3) #2 Copper power cables with no ground conductor are routed from the main disconnect to the MDP.

   c. Non-metallic sheathed cable (Romex) is used for the branch circuit wiring.

   d. Some receptacles were wired incorrectly posing a health hazard.

3. Grounding System
   a. The building has a single ground rod. The metallic piping systems are not bonded.

4. Exterior Elements
   a. A HID fixture provides exterior lighting at each man door with photocell control override.

   b. No exterior power receptacles were installed.

   c. Telephone service enters at a weatherproof protection test block on the exterior of the building.

5. Electrical devices and lighting
   a. Receptacles are grounding type.

   b. The lighting is predominately 4 ft fluorescent T12 (2) lamp surface mounted wrap diffuser fixtures. Support rooms are incandescent type A19 lamped fixtures.

c. Interior device plates are non-metallic ivory decorative plates.

6. Emergency System
   a. No emergency egress signage was installed.

   b. One emergency light with exposed unsupported romex was provided in the main corridor.

7. Fire Alarm System
   a. Battery power smoke detectors were installed. No manual pull stations or visual notification devices were installed.

8. Telecommunication
   a. A very limited voice system is provided consisting of one base unit and two remote wireless phones. No data system is presently installed.

G. Civil / Utility Condition

1. Location of building
   a. Patient Access
      Located in the relative center of the village for ease of access and seems to work fine. It is off of the main road to the airport that is an advantage.

   b. Service Access
      Road access is provided to front and rear entry. Neither stair nor ramp access to rear, or stairs to front entry meet code access requirements. Ramps are excessively steep providing a slipping hazard in winter months.

   c. Other Considerations:
      The facility is located on a flat site and is a good location but soils are just tundra with very little gravel available.

2. Site Issues
   a. Drainage
      Drainage from the site is adequate although the south side is lower and looks like it ponds during some times of the year. There is no significant pad on which the building is constructed, just the tundra. Correction would include putting a new extended pad on the site prior to placing the post and pad system, shoring of the site, and new gravel to stabilize.

   b. Snow
      There does not appear to be a snow-drifting problem as the facility sits in the open.

3. Proximity of adjacent buildings
   There is a home 30 ft to the east and nothing else within 50 feet of the facility.

4. Utilities
   a. Water Supply
      The new city water supply combined with the haul system provides adequate water for the facility.

   b. Sewage Disposal
      Sewage disposal is provided by City flush tank and haul system and lagoon.

   c. Electricity
      Power from Village system via overhead wire. See Photos

   d. Telephone
      Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plan if available):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

A1.1 Existing Site Plan is attached if available

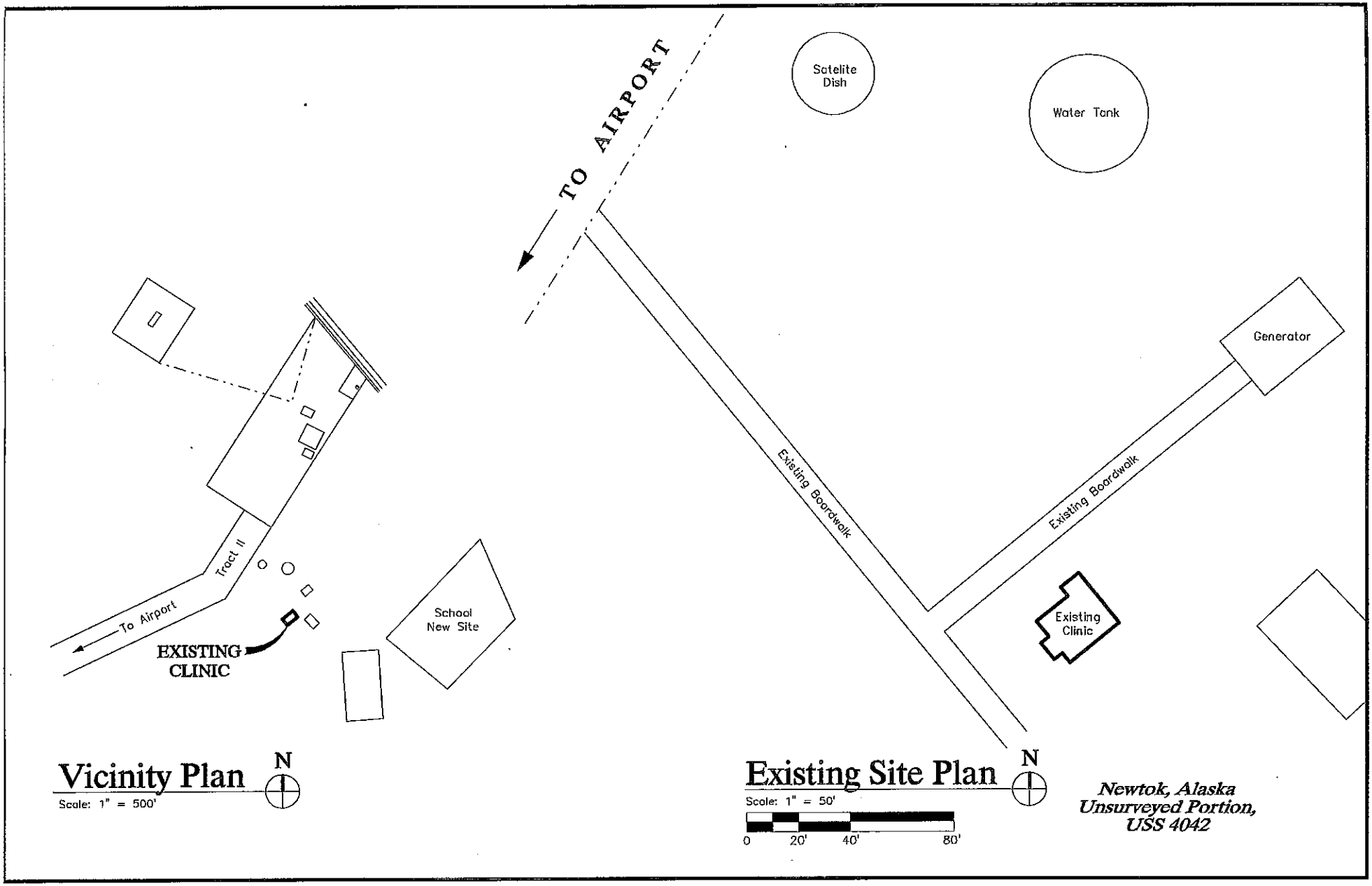
A1.2 Existing Facility Floor Plan is attached following.

A1.3 The Existing typical wall section is attached following as required by the report guidelines.

A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.

A3.1 The New Clinic Site plan is attached as proposed based on the community input.

A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.



Vicinity Plan

Scale: 1" = 500'

Existing Site Plan

Scale: 1" = 50'

Newtok, Alaska
Unsurveyed Portion,
USS 4042

YUKON-KUSKOKWIM HEALTH CORPORATION
P.O. Box 528
Bethel, Alaska 99559
(907) 543-6000

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA
49TH
Gerald L. Winchester
NO.5187-A
REGISTERED PROFESSIONAL ARCHITECT

ALASKA PRIMARY CARE FACILITY CODE & CONDITION SURVEYS

For The Denali Commission

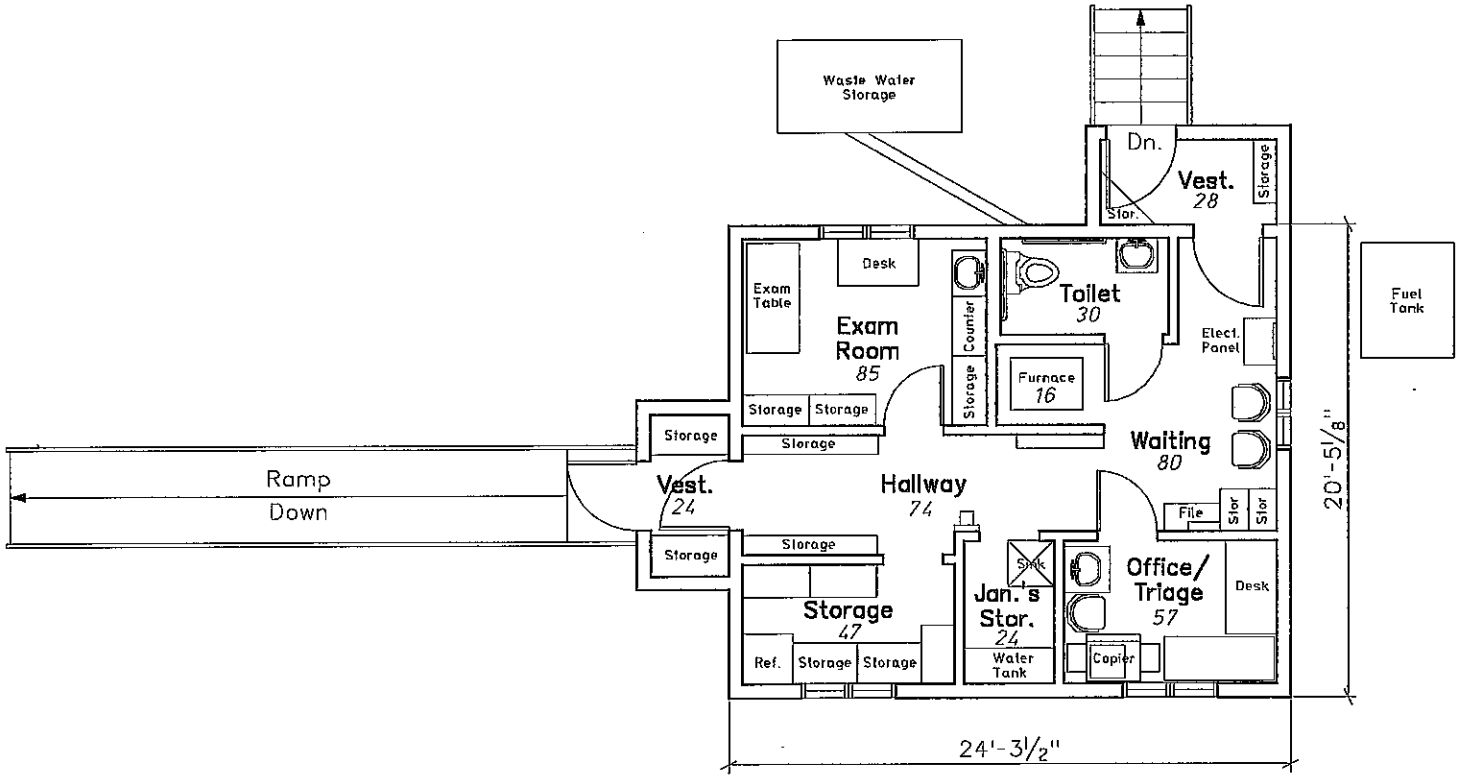
YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

EXISTING NEWTOK VICINITY & SITE PLANS

Drawn	Date
DT Company	7/16/2001
Checked	Job No.
G.L.W.	010602

Sheet #: A1.1



Existing Newtok Clinic Floor Plan

Scale: 1/8" = 1"-0"

566 Sf.

0 2' 4' 8'

YUKON-KUSKOKWIM HEALTH CORPORATION
P.O.BOX 528
Bethel, Alaska 99559
(907) 543-6000

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA 49TH
Gerald L. Winchester
NO.5187-A
REGISTERED PROFESSIONAL ARCHITECT

ALASKA PRIMARY CARE FACILITY CODE & CONDITION SURVEYS

For The Denali Commission

YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

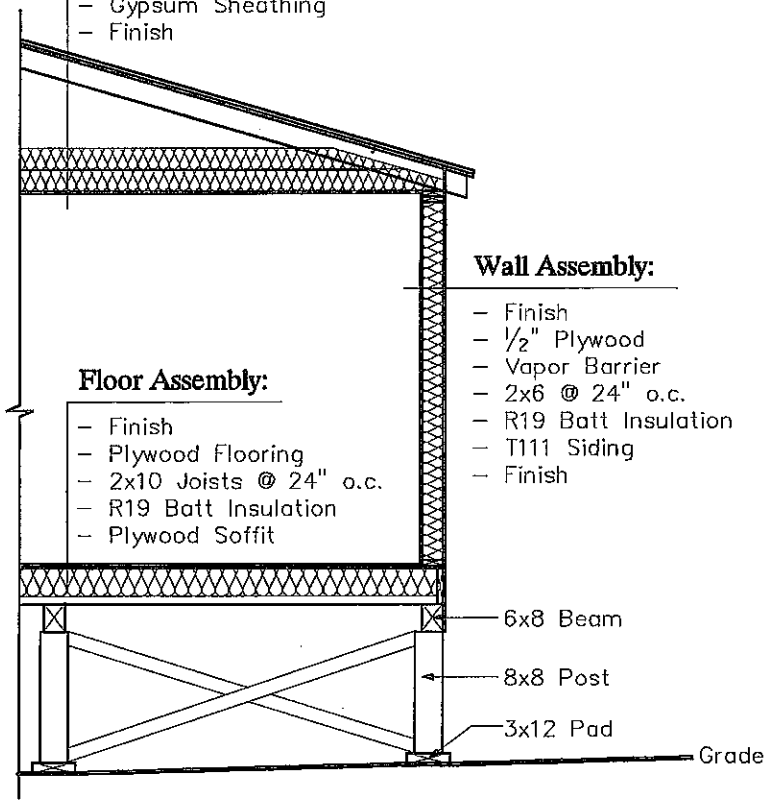
EXISTING NEWTOK CLINIC FLOOR PLAN

Drawn	Date
DT Company	7/16/2001
Checked	Job No.
G.L.W.	010502

Sheet #: A1.2

Roof Assembly:

- Prefinished Metal Roofing
- Plywood Deck
- Wood Trusses @ 24" o.c.
- R38 Batt Insulation
- Gypsum Sheathing
- Finish



Existing Newtok Clinic Wall Section

Scale: 1/4" = 1'-0"

0 1' 2' 4'

YUKON-KUSKOKWIM HEALTH CORPORATION
P.O.BOX. 528
Bethel, Alaska 99559
(907) 543-6000

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA 49TH
Gerald L. Winchester
NO.5187-A
REGISTERED PROFESSIONAL ARCHITECT

ALASKA PRIMARY CARE FACILITY CODE & CONDITION SURVEYS

For The Denali Commission

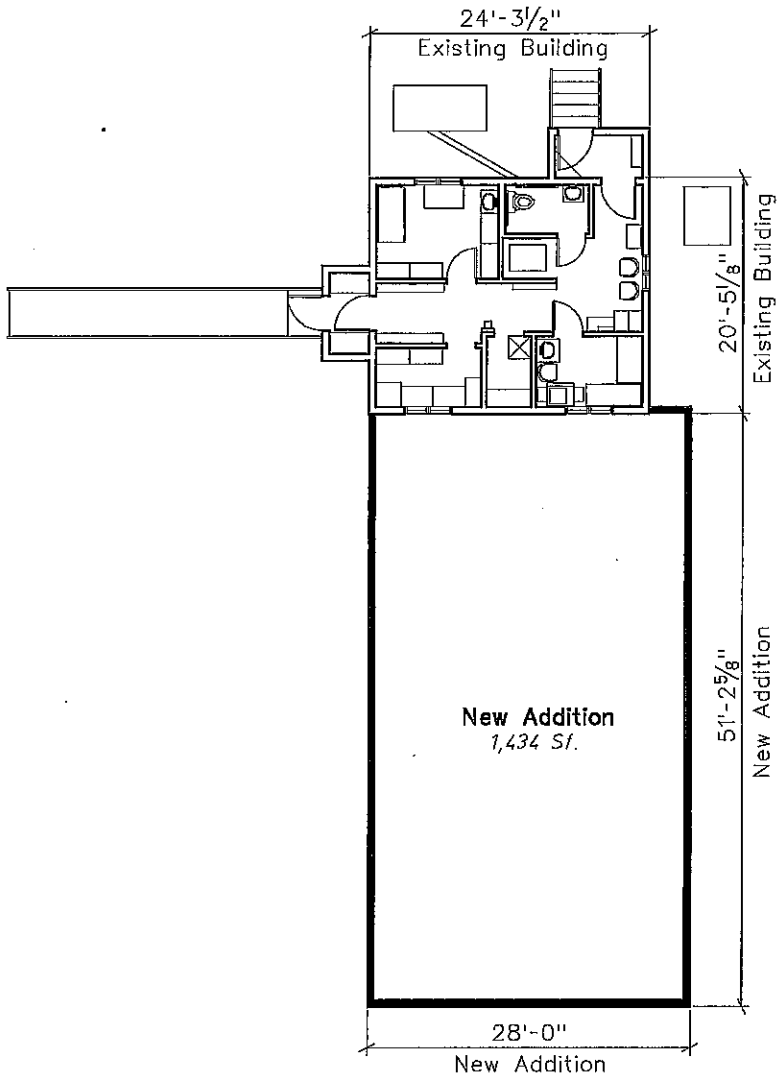
YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

EXISTING NEWTOK CLINIC WALL SECTION

Drawn	Date
DT Company	7/16/2001
Checked	**Job No.**
G.L.W.	010602

Sheet #: A1.3



New Addition Newtok Clinic Floor Plan

Scale: 1/16" = 1"-0"

0 4' 8' 16'

566 Sf. + 1,434 Sf. = 2,000 Sf.

YKHC
YUKON KUSKOKWIM HEALTH CORPORATION
P.O.BOX 528
Bethel, Alaska 99559
(907) 543-6000

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA 49TH
Gerald L. Winchester
No.5187-A
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ALASKA PRIMARY CARE FACILITY CODE & CONDITION SURVEYS

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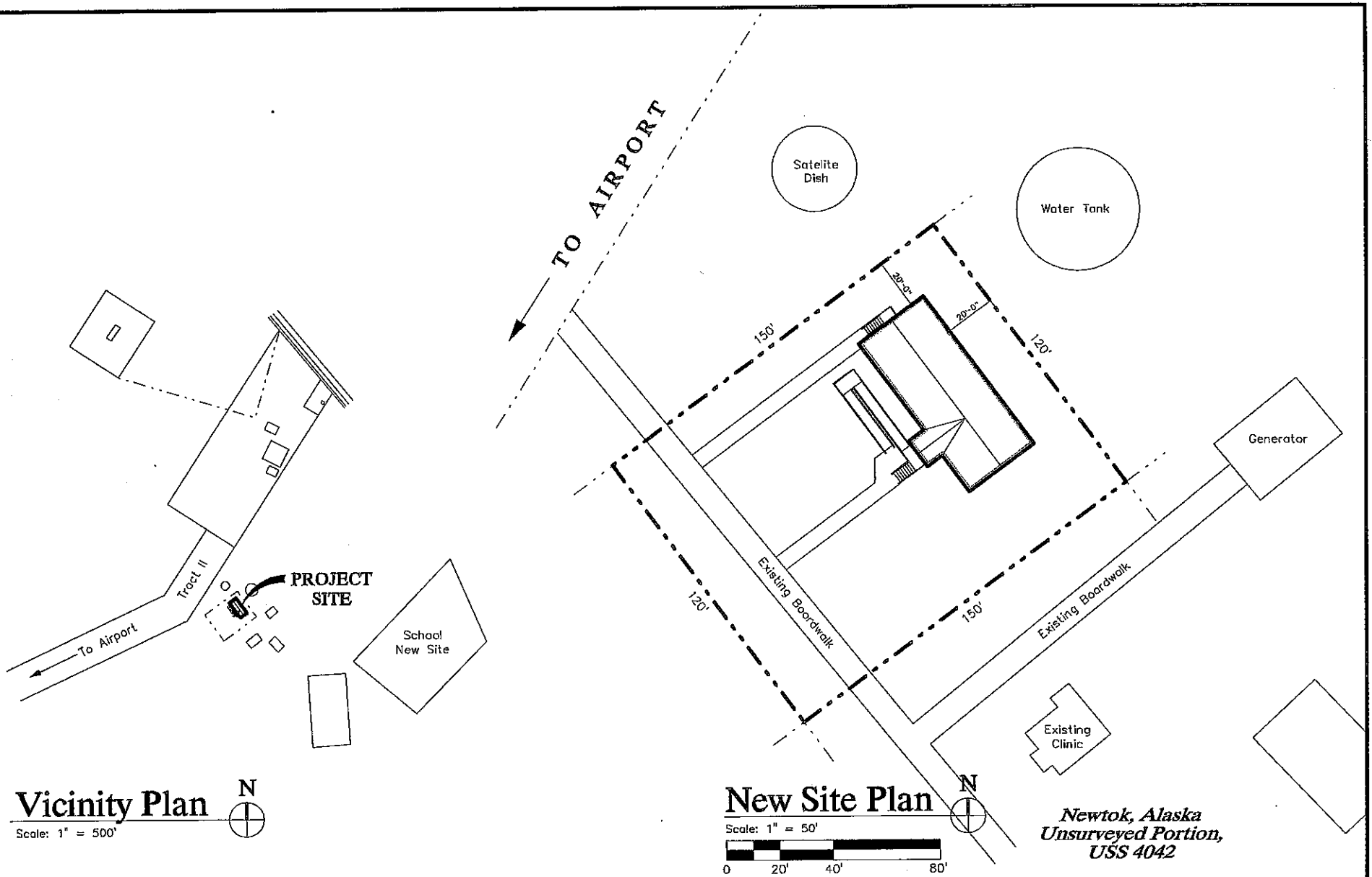
YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

NEW ADDITION NEWTOK CLINIC FLOOR PLAN

Drawn	Date
DT Company	7/16/2001
Checked	Job No.
G.L.W.	010602

Sheet #: A2.1



YUKON-KUSKOKWIM HEALTH CORPORATION
P.O. BOX 528
Bethel, Alaska 99559
(907) 543-5000

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA 49TH
Gerald L. Winchester
NO.5167-A
REGISTERED PROFESSIONAL ARCHITECT

ALASKA PRIMARY CARE FACILITY CODE & CONDITION SURVEYS

For The Denali Commission

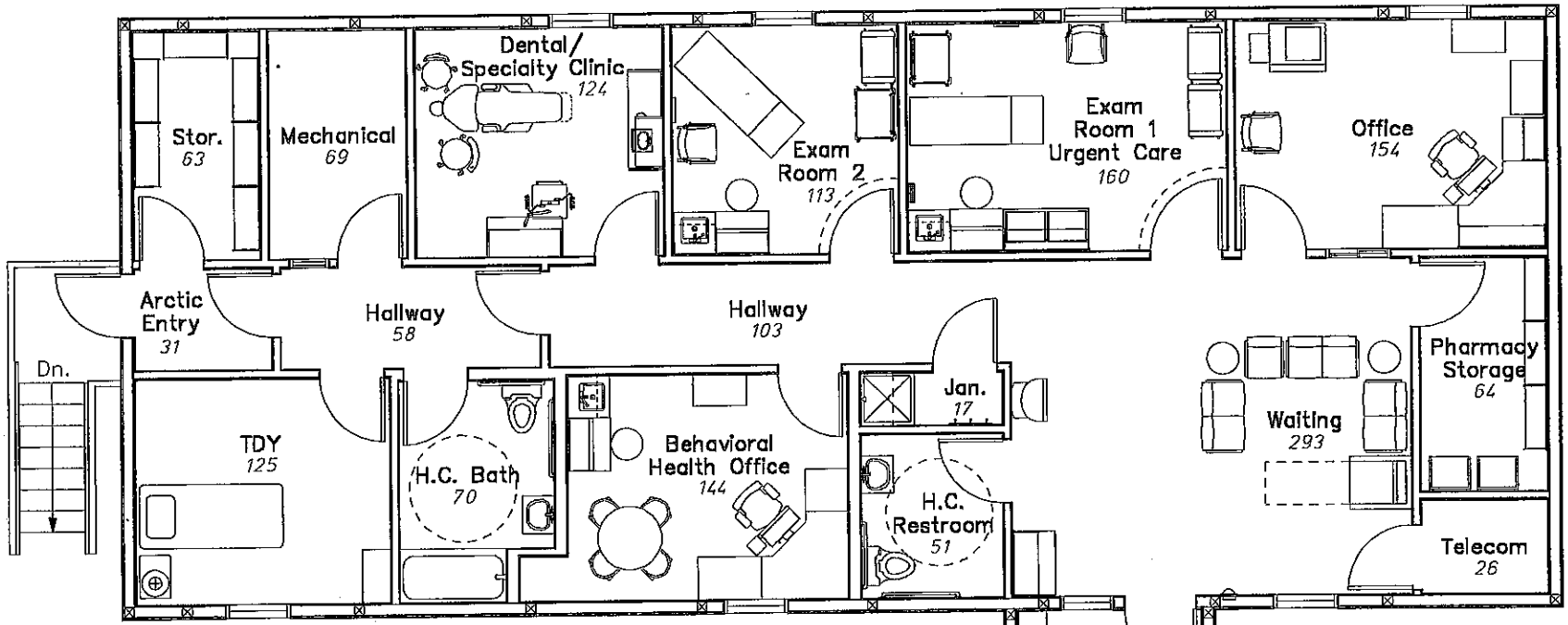
YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

NEW NEWTOK
VICINITY & SITE PLANS

Drawn	Date
DT Company	7/16/2001
Checked	Job No.
G.L.W.	010602

Sheet #: A3.1

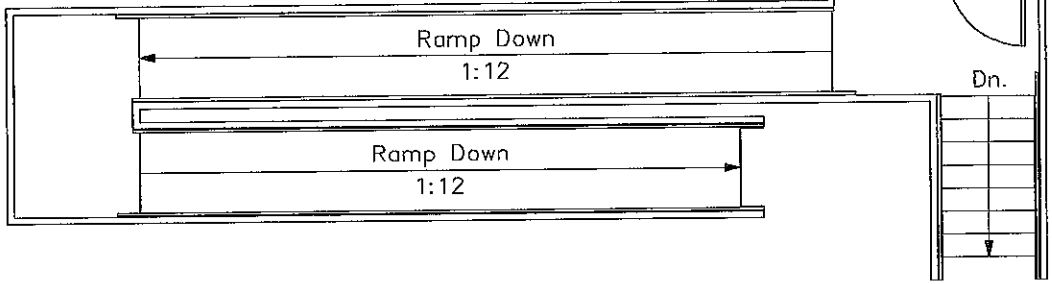


New Newtok Medium Clinic Floor Plan

2,000 Sf.

Scale: 1/8" = 1'-0"

0 2' 4' 8'



YUKON KUSKOKWIM HEALTH CORPORATION
P.O.Box 528
Bethel, Alaska 99559
(907) 543-6019

Winchester Alaska, Inc.
Architects & Planners
645 G Street #613
Anchorage, Alaska 99501
Phone: (907) 272-4347
Fax: (907) 272-5751
jwinchester@winchesteralaska.com
http://www.winchesteralaska.com/

STATE OF ALASKA 49TH
Gerald L. Winchester
NO.5187-A
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For The Denali Commission

YUKON-KUSKOKWIM HEALTH CORP
NEWTOK, ALASKA

Sheet Contents

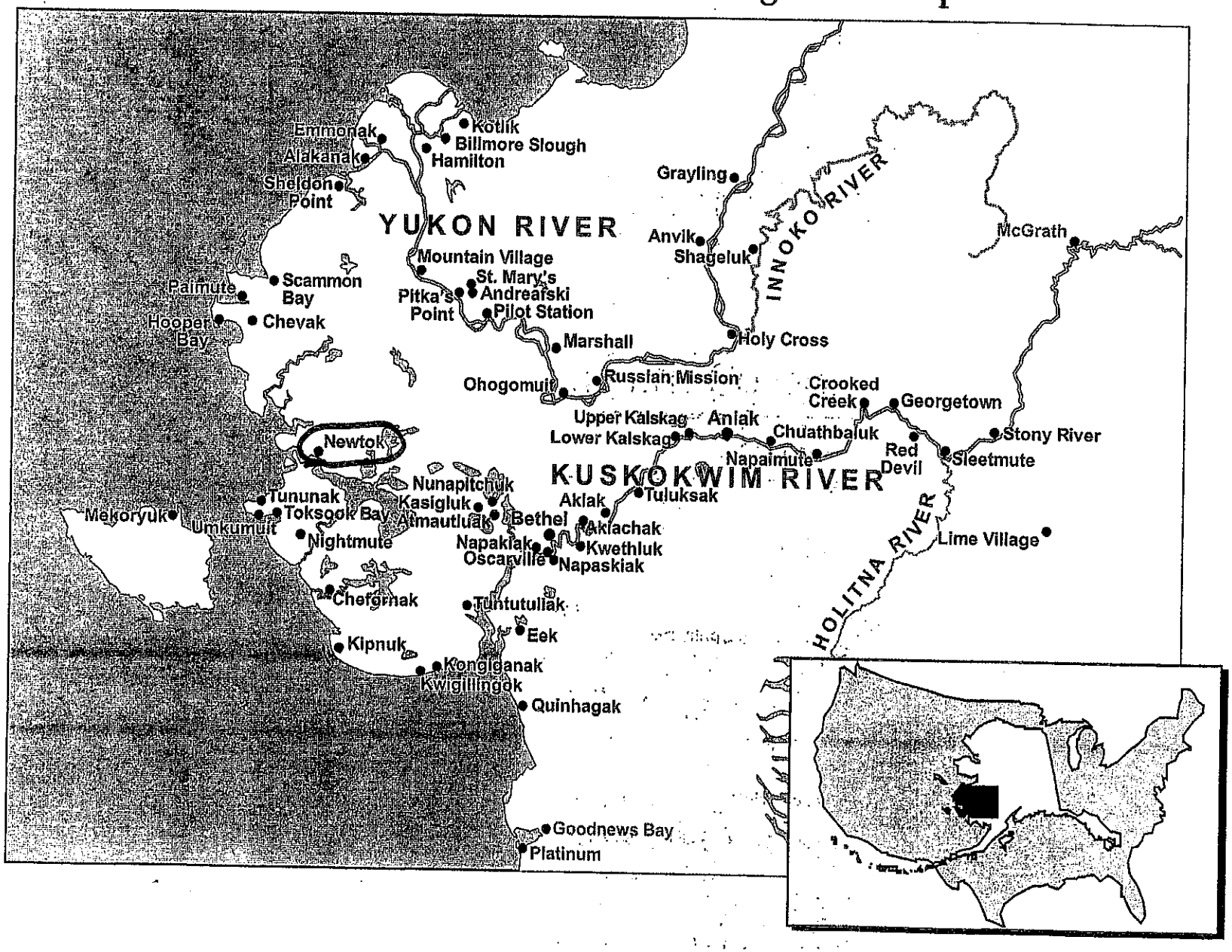
NEW NEWTOK
MEDIUM CLINIC FLOOR PLAN

Drawn	Date
DT Company	7/18/2001
Checked	Job No.
G.L.W.	010602

Sheet #: A3.2

YUKON-KUSKOKWIM HEALTH CORPORATION

Region Map



IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 **Program Deficiencies:** Based on assessment of the facility's ability to support the stated services that are required to be provided at the site.

02 **Fire and Life Safety Deficiencies:** Based on the identified areas where the facility is not in compliance with provisions of the state building codes including, UBC, UFC, NFPA 101, UMPC, NEC. These are organized sequentially from Architectural

03 **General Safety:** Based on items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices.

04 **Environmental Compliance:** Based on non-conformance with DEC regulations, hazardous materials and general sanitation.

05 **Program Deficiencies:** These are items that are required for delivery of the medical services model currently accepted for rural Alaska. This may include space requirements, functional needs, or other items to meet the delivery of quality medical services.

06 **Unmet Supportable Space Needs:** These are items that are required to meet the program delivery of the clinic and may not be show or delineated in the Alaska Primary Care Facility Space Guidelines.

07 **Disability Access Deficiencies:** Items not in compliance with the Americans with Disabilities Act.

08 **Energy Conservation:** These are items that are required for energy conservation and good energy management.

09 **Plant Management:** This category is for items that are required for easy and cost efficient management and maintenance of the Physical Plant.

10 **Architectural M & R:** Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, and general condition of interiors, and prevention of deterioration of structure and systems.

11 **Structural M & R:** Deficiencies and items affecting the integrity of the building. These include foundations, roof and wall structure, materials used, insulation, vapor retarders, attic and crawlspace ventilation, and general condition of interiors.

12 **Mechanical M & R:** Deficiencies in plumbing, heating, ventilation, air conditioning, or medical air systems.

13 **Electrical M & R:** Deficiencies with electrical generating, distribution, fire alarm, and communications systems.

14 **Utilities M & R:** Deficiencies with the utilities hook-ups, systems, and distribution.

15 **Grounds M & R:** Deficiencies with the civil site issues, drainage, access, etc.

16 **Painting M & R:** Deficiencies of painting, exterior, interior, trim and soffit.

17 **Roof M & R:** Deficiencies in roofing, and related systems including openings.

18 **Seismic Mitigation:** Deficiencies in seismic structural items or other related issues to seismic design including material improperly anchored to withstand seismic effect.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency) The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**
  - Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
  - Design Services is included at 10% to cover professional services including engineering and design.
  - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
  - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

  The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

  This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

  Similar to new clinics, the following project factors have been included in Section VI of this report.

  - Design Services is included at 10% to cover professional services including engineering and design.
  - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
  - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

  This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

Alaska Rural Primary Care Facility

ANTHC

Code and Condition Survey Report

Yukon-Kuskokwim Health Corporation

(Summary Listing of Deficiencies by Code)

Clinic: **04** **Newtok**

Deficiency Code		Reference	Work Description	Cost
01	Patient Care	Ane05	Provide interior access to Trauma Room	$3,363.00
01	Patient Care	Ane09	All new finish flooring, base and trim	$10,719.00
01	Patient Care	Ane10	Walls repair	$22,699.00
01	Patient Care	Ane12	Replace all interior doors & hardware	$9,309.00
01	Patient Care	Ane13	Replace cabinets, casework, & sinks	$21,651.00
01	Patient Care	Ane19	Renovation Existing Clinic Space	$77,534.00
02	Fire/Life Safety	Ane02	Add and Replace front steps,landings, and railings	$46,983.00
02	Fire/Life Safety	Ane03	Replace rear entry stairs, ramp, landings, and railings	$46,983.00
02	Fire/Life Safety	Ane04	Provide access to Trauma room, vestibules	$31,493.00
02	Fire/Life Safety	Ane07	Floor/foundation system, lateral bracing, rotting	$52,220.00
02	Fire/Life Safety	Ane08	Boiler room needs to be 1 hr. rated	$21,040.00
02	Fire/Life Safety	N01	Provide combustion air for the furnace	$1,428.00
02	Fire/Life Safety	N04	Fire alarm deficiencies	$4,878.00
02	Fire/Life Safety	N05	Exit sign deficiencies	$2,022.00
02	Fire/Life Safety	N08	Exposed flammable pipe insulation	$646.00
02	Fire/Life Safety	N10	Fuel oil storage tank and piping	$2,847.00
02	Fire/Life Safety	N12	Emergency egress lighting	$2,686.00
03	Safety	Ane15	Provide for attic ventilation	$3,675.00

(Summary Listing of Deficiencies by Code)

03	Safety	Ane18	Shelving for storage of Medical Items	$6,454.00
04	Environmental Qualit	Ane11	Replace all ceiling systems	$15,361.00
04	Environmental Qualit	Ane14	Add Roof Insulation	$1,284.00
04	Environmental Qualit	Ane17	Re-caulk, seal, & paint exterior of building	$6,749.00
05	Program	Ane01	Add 1380 SF of program space for size of Village.	$728,759.00
07	Handicapped	Ane06	Provide new bath and toilet facilities to meet ADA	$41,551.00
07	Handicapped	Ane16	Replace exterior doors	$9,730.00
12	BEMAR Mechanical	N02	Corrosion on furnace stack	$3,762.00
12	BEMAR Mechanical	N03	Furnace room storage	$468.00
12	BEMAR Mechanical	N04	Clinic water and sewer service	$46,317.00
12	BEMAR Mechanical	N05	Water heater dielectric unions	$162.00
12	BEMAR Mechanical	N06	Piped relief valve at the water heater	$147.00
12	BEMAR Mechanical	N07	Non ADA plumbing fixture used in restroom	$1,538.00
12	BEMAR Mechanical	N09	Exhaust air in janitor's room	$1,042.00
13	BEMAR Electrical	N01	Roof mounted antenna grounding	$1,472.00
13	BEMAR Electrical	N02	Replace wiring system	$5,693.00
13	BEMAR Electrical	N03	Cable support	$694.00
13	BEMAR Electrical	N06	Fixtures installation	$351.00
13	BEMAR Electrical	N07	Add GCFI protection in bathroom	$54.00
13	BEMAR Electrical	N08	Panelboard deficiencies	$1,378.00
13	BEMAR Electrical	N09	Water heater deficiencies	$519.00
13	BEMAR Electrical	N10	Grounding Electrode System	$1,042.00

13	BEMAR Electrical	N11	Branch Circuit Cable Protection	$3,038.00
13	BEMAR Electrical	N13	Relocate fuel tank	$0.00
13	BEMAR Electrical	N14	Service entrance cable protection	$964.00
13	BEMAR Electrical	N15	Add convenience receptacles	$2,280.00

Code / Conditions Subtotal:	**$436,692.00**
Remodel Subtotal:	**$77,534.00**
Addition Subtotal:	**$728,759.00**
Clinic Total:	**$1,242,985.00**

13	BEMAR Electrical	N11	Branch Circuit Cable Protection	$3,038.00
13	BEMAR Electrical	N13	Relocate fuel tank	$0.00
13	BEMAR Electrical	N14	Service entrance cable protection	$964.00
13	BEMAR Electrical	N15	Add convenience receptacles	$2,280.00

Code / Conditions Subtotal:	**$436,692.00**
Remodel Subtotal:	**$77,534.00**
Addition Subtotal:	**$728,759.00**
Clinic Total:	**$1,242,985.00**

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a size of village. We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2000 SF Large Clinic in Newtok is projected to be:

• Base Anchorage Construction Cost per s.f.			$183
• Project Cost Factor:		@ 45%	$ 82
Medical Equipment	17%		
Construction Contingency	10%		
Design Fees	10%		
Construction Administration	8%		
• Multiplier for Village		@ 1.70	$186
Adjusted Cost per SF			$451
Projected Cost of a New Clinic:	**2000 s.f. X $451**	=	**$902,000**

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations			
Cost from Deficiency Summary			$436,692
• Remodel/Upgrade work (See Def. Code 19)			
100% of clinic 566 SF = 566 sf @ $104 /SF			$ 77,534
• Additional Space Required by ARPCF (See Def. Code 01)			
o Base Anchorage Cost			$183
Additional Costs –			$115
Medical Equipment		17%	
General Requirements		20%	
Estimation Contingency		15%	
o Multiplier for Village	@ 1.70		$210
Adjusted Cost per SF			$508
Total Addition Cost of SF @ $508			$728,759
Project Cost Factor:		@ 28%	$348,036
Construction Contingency	10%		
Construction Administration	8%		
Design Fees	10%		
Total cost of remodel/addition			**$1,591,021**

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$1,591,021 / $902,000 = 1.76 x cost of New Clinic

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

VII. Conclusions and Recommendations

The existing Newtok Clinic has served the community well for many years. Base on current ANTHC and YKHC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission Medium 2000 SF Clinic be considered for Newtok. The addition of approximately 1434 SF of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.76 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Medium Clinic would meet the current community needs and for years to come. In addition, they agreed and provided a new clinic site adjacent to the existing Health Clinic and adjacent to city facilities. The new site is adjacent to all existing city utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Newtok community and is aggressively moving to assist in any way to accomplish this goal.